



US007674630B2

(12) **United States Patent**
Siverson

(10) **Patent No.:** **US 7,674,630 B2**
(45) **Date of Patent:** **Mar. 9, 2010**

(54) **METHOD AND DEVICE FOR SEPARATING PARTICLES**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 328 days.

(21) Appl. No.: **11/663,574**

(22) PCT Filed: **Sep. 23, 2005**

(86) PCT No.: **PCT/EP2005/054794**

§ 371 (c)(1),
(2), (4) Date: **Mar. 23, 2007**

(87) PCT Pub. No.: **WO2006/032703**

PCT Pub. Date: **Mar. 30, 2006**

(65) **Prior Publication Data**
US 2008/0217259 A1 Sep. 11, 2008

(30) **Foreign Application Priority Data**
Sep. 24, 2004 (SE) 0402312

(51) **Int. Cl.**
G01N 1/18 (2006.01)

(52) **U.S. Cl.** **436/177**; 210/748

(58) **Field of Classification Search** None
See application file for complete search history.

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(57) **ABSTRACT**

The invention relates to a method and a device for separating particles using ultrasonic standing waves which are switched between two different frequencies. A second order harmonic standing wave is used together with the fundamental standing wave. If the particles are exposed to the fundamental standing wave, the forces act to collect particles at the center. If the particles are exposed to the second order harmonic standing wave, the forces act to collect particles at the two pressure nodes at the sides. By switching the frequency between the second order harmonic standing wave and the fundamental standing wave, particles with different properties will be exposed to different accelerations and are separated into two streams.

9 Claims, 4 Drawing Sheets

